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Student Achievement Testing Program Bulletin

Grade 6 Science

1989-90 School Year

Students First !

Student Evaluation and Records

Alberta EDUCATION

September 1989

This bulletin contains general information about the 1990 Student Achievement Testing Program, and information specific to the Grade 6 Science Achievement Test. Additional copies of this bulletin may be obtained by telephoning Alberta Education at 427-2948.

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September 1989

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PURPOSE OF THE BULLETIN

The Grade 6 Science Achievement Test will be written on June 12, 1990. This bulletin provides general information about the Achievement Testing Program as well as specific information about the design, the composition, and the scoring of the Grade 6 Science Achievement Test.

The *Grade 6 Science Curriculum Specifications (May, 1986)*, presents the specific content and objectives for grades 4, 5, and 6. These specifications are used as a guide for the development of the test questions.

Students should have access to the information in this bulletin, particularly to the sample questions.

Questions or comments regarding this bulletin should be directed to:

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Purpose of the Achievement Testing Program

The Achievement Testing Program provides Alberta Education, school jurisdictions, and the public with information significant at the provincial and local levels about student knowledge, understanding, and skills in relation to program objectives. This program is not intended to provide information to be used for student placement or promotion.

The achievement tests are administered on a four-year cycle in four subject areas: language arts, social studies, mathematics, and science; and at three grade levels: 3, 6, and 9.

Nature of the Achievement Testing Program

The achievement tests are specific to the program of studies prescribed by the Minister of Education. Curriculum specifications for each subject area, provided by the Curriculum Branch and the Language Services Branch of Alberta Education, identify the major content areas, the specific learning objectives within each content area, and the emphasis that each objective is to receive. The test questions reflect these curriculum specifications. They also reflect the standards that are implicit in the curriculum. For further information about these standards, please refer to pages 21 to 23.

Classroom teachers from across the province are extensively involved in developing and field testing the questions. The student responses are analysed after field testing to determine each question's suitability for inclusion on an achievement test. Questions may undergo several revisions before they appear on the achievement test.

The final draft of each test is examined by an Achievement Test Review Committee that includes representatives of The Alberta Teachers' Association, the Conference of Alberta School Superintendents, Alberta's post-secondary institutions, and Alberta Education.

Exemptions from the Achievement Testing Program

All students who have been taught the subject being tested are expected to participate in the Achievement Testing Program. Any exceptions should be identified by the principal and approved by the superintendent of schools.

The only students who may be excused from participating are those for whom the test is inappropriate. That is:

1. Students who are enrolled in an approved program that has been designed for special needs students.
2. Students who were taught the subject being tested in another semester or year.
3. Students who would normally write mathematics, science, or social studies but who are enrolled in an English as a Second Language program.
4. Students who are being taught the specific subject being tested (mathematics, science, or social studies) in a language other than English.

Exemptions for reasons other than those outlined must be approved by the Director of the Student Evaluation and Records Branch.

Note: All Grade 9 students are expected to write the Grade 9 English Language Arts Achievement Test in 1990.

Students Receiving Instruction in French

A French language arts achievement test is available and Francophone and French Immersion students are encouraged to write it. A French translation of the Grade 6 Science Achievement Test is also available. School jurisdictions are requested to identify the number of English and French versions of the achievement tests, that they require, on forms that Alberta Education will send to them by February 1, 1990. These forms must be returned through each jurisdiction office by March 9, 1990.

Administration of the Achievement Testing Program

The Achievement Testing Program is administered in accordance with *Examination Regulation 531/82* pursuant to Section 11(1)(g) of the *School Act*. The achievement tests must be administered on the scheduled dates and may not be rescheduled.

The achievement tests must remain unopened until the time of administration. Duplication of any test materials, including the test booklets and answer sheets, is expressly forbidden.

Immediately following the administration of the scheduled achievement tests, the principal must ensure that test booklets and answer sheets are forwarded to school board offices. The school board is responsible for collecting and forwarding to the Student Evaluation and Records Branch all test materials containing students' responses. Further details regarding procedures for returning these materials to the Branch will be issued when the achievement tests are delivered. For private schools, the Regional Offices of Alberta Education assume responsibility for collecting and forwarding test materials to the Student Evaluation and Records Branch. All unused testing material may be retained by the school jurisdiction.

Alberta Education will supervise the scoring of all achievement tests. The scoring of achievement tests by school personnel prior to returning test materials to the Student Evaluation and Records Branch is a violation of the *Examination Regulation* and contrary to the intent of the Achievement Testing Program.

During 1990, the achievement tests will be administered according to the following schedule:

Tuesday, June 12, 1990

Grade 3 Mathematics (a.m.)

Grade 6 Science* (a.m.)

Grade 9 English Language Arts (a.m. and p.m.)

Thursday, June 14, 1990

Grade 9 French Language Arts (a.m. and p.m.)

In 1991, the achievement tests will be administered according to the following schedule:

Tuesday, June 11, 1991

Grade 3 Science (a.m.)

Grade 6 Mathematics* (a.m.)

Grade 9 Social Studies* (a.m.)

* A French translation of this test is available. The French translation must be administered at the same time as the English version.

Reporting the Achievement Test Results

In September, 1990, a provincial report will be issued that will present the overall results for the province on major curriculum dimensions. Each jurisdiction will receive a district profile of student achievement to parallel the provincial report, as well as guidelines for interpreting the jurisdictional results in relation to provincial standards. Alberta Education will not issue individual statements of results to students; individual student profiles will be returned to superintendents.

Any students who write a test, although qualified for exemption, will not have their scores included in the provincial results. Separate jurisdiction and school reports will be prepared for these students.

Jurisdictions and schools who choose to have their Francophone and/or French Immersion program students write the Grade 6 Science Achievement Test either in English or in French translation will receive separate jurisdiction and school reports for those students. As well, the Student Evaluation and Records Branch is addressing methods of appropriately reporting these results and those for the Grade 9 French Language Arts Achievement Test on a provincial level. The preparation of a special report on results for students in French language programs is anticipated in the fall of 1990.

DESCRIPTION OF THE GRADE 6 SCIENCE ACHIEVEMENT TEST

General Description

The time allotted for writing the Grade 6 Science Achievement Test is one hour.

The test consists of 60 multiple-choice questions that are answered on machine-scorable answer sheets.

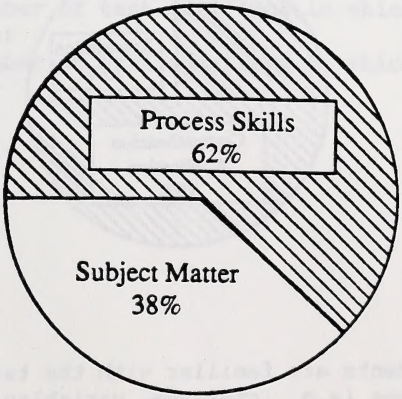
Students must use HB pencils and erasers. Calculators are not required for successful completion of the test.

Content of the Test

The four major components of the Grade 6 Science curriculum and the emphasis that each is to receive according to the *Grade 6 Science Curriculum Specifications (May, 1986)* act as a guideline for the development of the achievement test. These are:

Component	Emphasis
Process Skills	50%
Psychomotor Skills	10%
Attitudes	10%
Subject Matter	30%

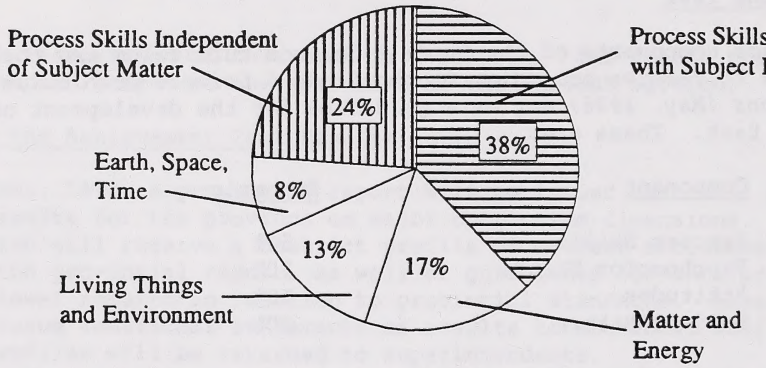
However, the scope of the Grade 6 Science Achievement Test is, of course, limited to those objectives that may be efficiently tested using paper and pencil. While some questions on the test may reflect the psychomotor skills component, basically it is the process skills and subject matter components of the curriculum that are tested. The psychomotor skills and attitudinal components will be reflected in the teacher's evaluation of students. In blueprinting this test, representative proportions of the psychomotor skills and attitudinal emphasis have been combined with the process skills and subject matter emphasis as illustrated in the circle graph below.



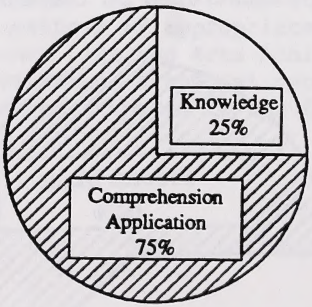
The subject matter component is divided into three subtests to reflect the themes in the Grade 6 Science core. These themes are listed below.

1. Matter and Energy
2. Living Things and Environment
3. Earth, Space and Time

It should be noted that within the process skills component all process skills will be represented, however, emphasis will be placed on inferring, predicting, controlling variables, and interpreting data. The process skills component will consist of questions integrated with the subject matter and questions of process skills independent of subject matter. The emphasis given to each theme and to process skills is shown in the circle graph below.



The test questions represent the cognitive levels of knowledge, comprehension, and application. An explanation of these terms is given in Appendix A. The emphasis given to each cognitive level is shown in the circle graph below.



It is assumed that students are familiar with the terminology used in the curriculum specifications (e.g. inference, variables, hypothesis, closed circuit, changes in composition, etc.).

Blueprint for the Achievement Test

The approximate emphasis by number of questions for each subtest, cognitive level, and component are presented in the table below.

Table 1: Grade 6 Science
Test Blueprint Emphasis by Distribution of Questions

SUBTEST	COMPONENT		TOTAL	COGNITIVE LEVEL[1]		TOTAL
	Process[2] Skills	Subject Matter		Knowledge	Comprehension and Application	
Matter and Energy	11	11	22	6	16	22
Living Things and Environment	9	9	18	4	14	18
Earth, Space, and Time	3	3	6	3	3	6
Process Skills[3]	14	-	14	2	12	14
TOTAL	37	23	60	15	45	60

[1] Refer to Appendix A
[2] This column indicates the number of test questions in which process skills are integrated with subject matter
[3] This column indicates the number of test questions in which process skills are independent of subject matter

Standard Setting

Standard setting is a process whereby teachers are asked to make judgements related to the achievement test to answer the question of whether province-wide performance is satisfactory. For more information on standard setting procedures refer to Appendix B of the Achievement Testing Program, Provincial Report, June 1989 Administration.

Selection of Standard Setters

To qualify for recommendation by a superintendent, a prospective standard setter must have taught Grade 6 science for two or more years, currently be teaching Grade 6 science, and hold a valid permanent Alberta teaching certificate.

Superintendents will be contacted in March 1990 for their recommendations. The Student Evaluation and Records Branch will select approximately 20 teachers from the list of recommended standard setters. Selections will be made to reflect a proportional representation from the various regions of Alberta. Standard setters will be contacted in May.

Sample Questions

Questions that reflect the nature and complexity of the questions that will appear on the achievement test are presented on the following pages.

Teachers are encouraged to familiarize their students with the type of questions and process skills vocabulary that will appear on the achievement test by having their students work through the sample questions. The difficulty level of each question indicates the percentage of students who answered the question correctly in the previous achievement test. For example, a difficulty level of 0.431 indicates that 43.1% of the students answered the question correctly.

Please note that this collection of 13 questions roughly approximates the test emphasis as presented in the blueprint.

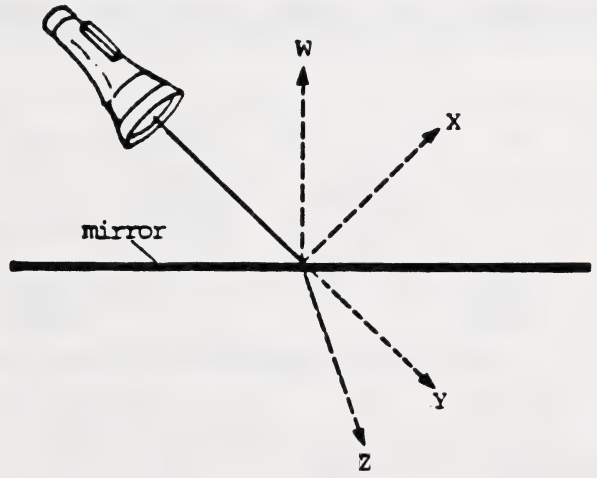
An asterisk denotes the correct answer for each sample question.

Question 1

Concept: Matter and Energy
Subconcept: Light - observe light reflecting off a mirror and infer that light travels in a straight line.
Cognitive Level: Knowledge
Difficulty: 0.748

Use the following information to answer question 1.

In the picture below, a beam of light is shone at a mirror.



1. Which letter shows the path that the light takes?

A. W
*B. X
C. Y
D. Z

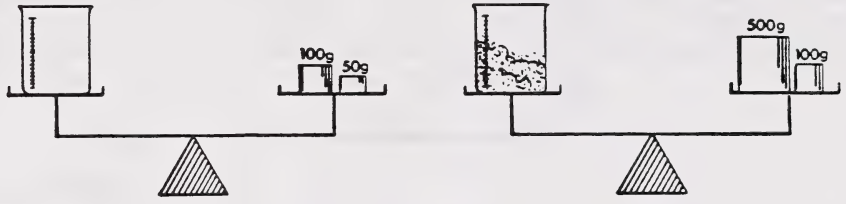
In this question students are required to recall how light is reflected off of a mirror.

Question 2

Concept: Matter and Energy
Process Skill: Measuring - performing necessary mathematical operations when taking measurements
Cognitive Level: Comprehension and Application
Difficulty: 0.427

Use the following information to answer question 2.

John measured the mass of a beaker. He then added some powder to the beaker and measured the mass of the beaker and the powder together.



2. What was the mass of the POWDER?

A. 150 g
*B. 450 g
C. 600 g
D. 750 g

In this question students are required to recall how the mass of the powder could be measured and then apply the correct mathematical operation to calculate the mass of the powder.

Question 3

Concept: Matter and Energy
Process Skill: Communicating - extending sophistication in graphing to include histograms, use of coordinate systems, circle graphs
Cognitive Level: Comprehension and Application
Difficulty: 0.839

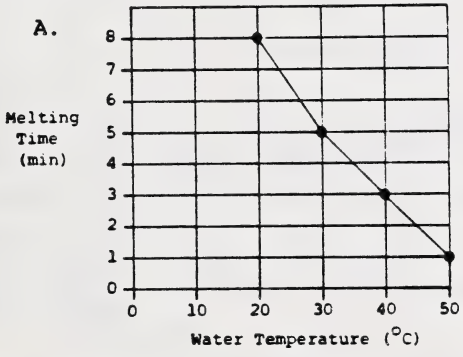
Use the following information to answer question 3.

Suzanne measured how fast ice cubes melted in different temperatures of water. She recorded her observations in the chart.

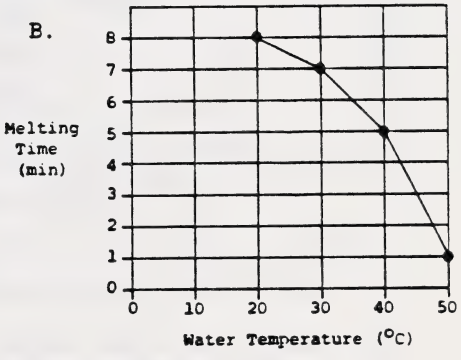
Water Temperature (°C)	20	30	40	50
Melting Time (min)	8	4	2	1

3. Which graph shows the same information as the chart?

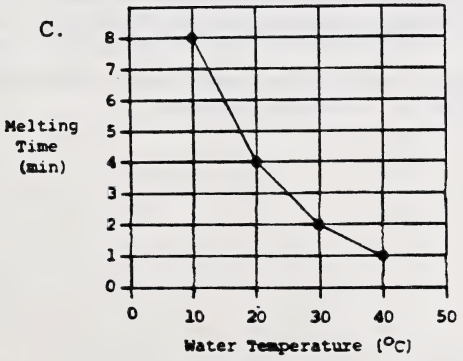
A.



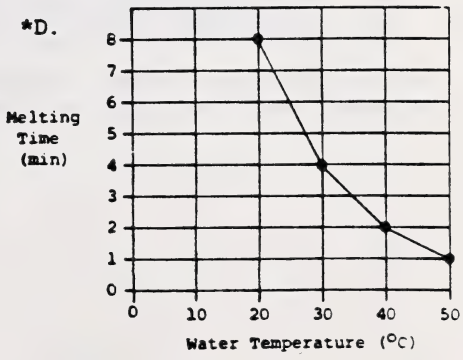
B.



C.



*D.



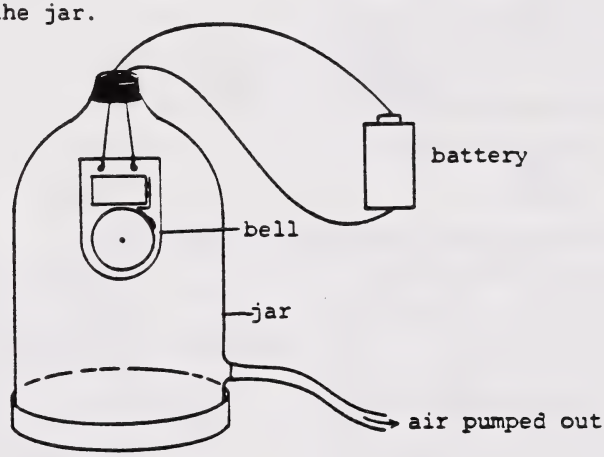
In this question students are required to recognize the correct graphical representation of the data in the table.

Question 4

Concept: Matter and Energy
Subconcept: Sound - observe, describe and demonstrate conditions necessary to produce sound
Cognitive Level: Comprehension and Application
Difficulty: 0.601

Use the following information to answer question 4.

The bell in the diagram can be heard ringing until air is pumped out of the jar.



4. Why can the bell not be heard when the air is removed?

A. The jar stops the sound.
B. Sound gets pumped out of the jar.
*C. Sound needs some material to travel through to reach the ear.
D. The electric circuit works only when there is air in the jar.

In this question students are required to recall the conditions necessary to create sound and apply this knowledge to a new situation.

Question 5

Concept: Living Things and Environment
Subconcept: Environment and Ecosystems - infer interactions and interrelationships to describe a food chain within an environment.
Cognitive Level: Comprehension and Application
Difficulty: 0.558

Use the following information to answer question 5.

Biologists counted the number of birds, rabbits, coyotes and grasshoppers in an area.

Type of Animal	Population
?	4
?	56
?	398
?	2 793

5. Which animal most probably has a population of 4?

A. Bird
B. Rabbit
*C. Coyote
D. Grasshopper

In this question students are required to recall the nature of interactions and interrelationships in a food chain and then infer which group of animals in a particular chain would have the smallest population.

Question 6

Concept: Living Things and Environment
Subconcept: Environment and Ecosystems - classify components of an environment as producer, consumer or decomposer.
Cognitive Level: Knowledge
Difficulty: 0.686

6. Which group contains decomposers only?

A. Bees, molds
B. Coyotes, algae
C. Vultures, weeds
*D. Bacteria, fungi

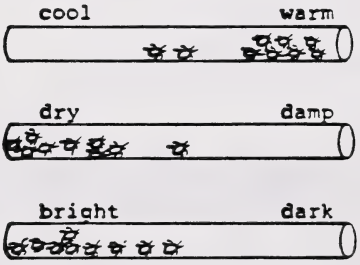
In this question students are required to recall examples of decomposers within an environment.

Question 7

Concept: Living Things and Environment
Subconcept: Environmental Factors - infer the types of natural habitats of organisms on the basis of their response to factors such as temperature, light, and moisture.
Process Skill: Inferring - making as many observations as possible, and choosing only those inferences that account for all observations.
Difficulty: 0.684

Use the following information to answer question 7.

Sally put insects in three tubes to test what kind of environment they prefer. The diagram shows the different environmental factors she tested and where the insects were after a period of time.



7. Which environment would these insects most likely prefer?

A. Marsh
*B. Desert
C. Northern forest
D. Tropical jungle

In this question students are required to infer from the data which environment the insects would most likely prefer.

Question 8

Concept: Living Things and Environment
Subconcept: Adaptations - classify animals as predators or prey on the basis of their special adaptations.
Cognitive Level: Comprehension and Application
Difficulty: 0.495

Use the following information to answer question 8.

The picture shows the skulls of three animals.

1. 2. 3.

8. Which of these skulls would belong to predators?

*A. 1 and 2
B. 1 and 3
C. 2 and 3
D. 1, 2 and 3

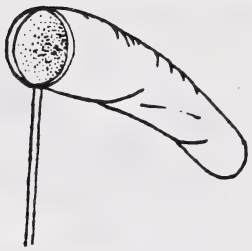
In this question students are required to identify the skulls that belong to the classification of animals known as predators.

Question 9

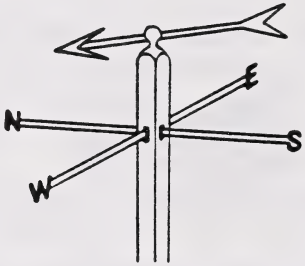
Concept: Earth, Space, and Time
Subconcept: Weather - construct simple weather instruments and use them to measure and record weather factors.
Cognitive Level: Knowledge
Difficulty: 0.618

9. Which instrument is commonly used to measure the speed of wind?

A. Wind sock

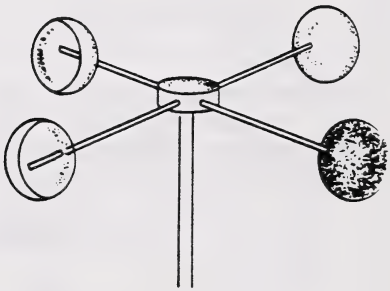


B. Weather vane



C. Weather balloon

*D. Anemometer



In this question students are required to recall the instrument commonly used to measure the speed of wind.

Question 10

Concept: Earth, Space, and Time
Subconcept: Water and Land - observe changes in the surface of the land caused by wind and running water and infer that these have altered some major land forms over time.
Process Skill: Inferring - applying the inferring process to situations which require direct observations.
Difficulty: 0.708

10. In which picture is there evidence that water erosion has occurred over a long period of time?

*A.

B.

C.

D.

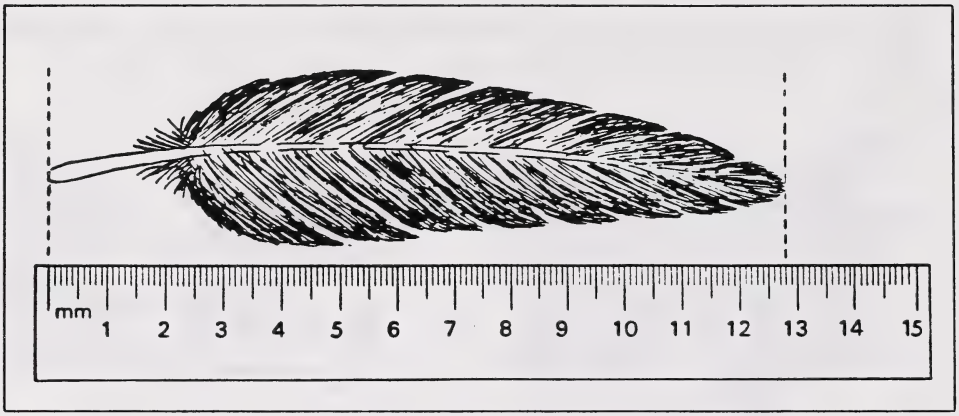
In this question students are required to observe pictures of different lanscapes and infer which one is likely the result of water erosion over a long period of time.

Question 11

Process Skill Independent of Subject Matter: Measuring - using simple instruments for measurement.

Cognitive level: Knowledge
Difficulty: 0.829

Use the following information to answer question 11.



11. The length of the feather is

A. 123 mm
B. 127 mm
*C. 128 mm
D. 129 mm

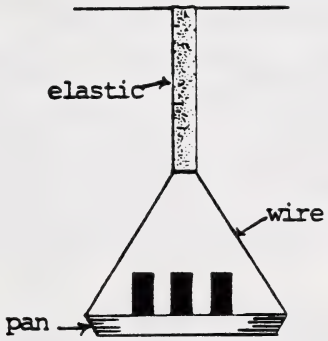
In this question students are required to read the length measurement of the feather indicated on the ruler.

Question 12

Process Skill Independent of Subject Matter: Predicting - making predictions from observing recorded data, e.g. map, graph or model.
Cognitive level: Comprehension and Application
Difficulty: 0.580

Use the following information to answer question 12

This is an elastic scale.



Joshua measured the distance the elastic stretched when different numbers of identical objects were placed in the pan.

Number of Objects	2	4	5	7
Distance elastic streched (cm)	2.0	4.0	5.5	7.9

12. Which is the BEST PREDICTION that can be made from the information in the chart?

*A. Three objects will stretch the elastic 3 cm.
B. Six objects will stretch the elastic 6 cm.
C. Eight objects will stretch the elastic 8 cm.
D. Ten objects will stretch the elastic 10 cm.

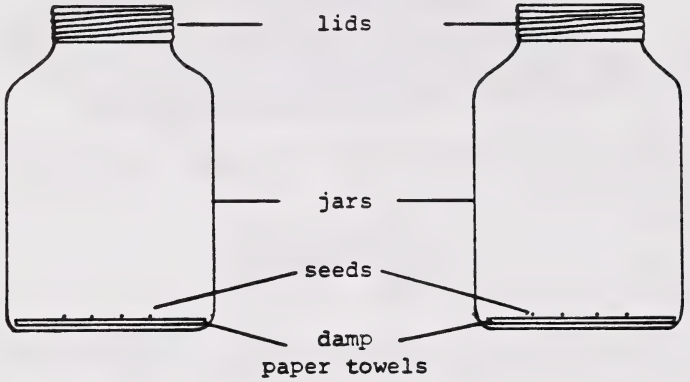
In this question students are required to use the data to select the best prediction.

Question 13

Process Skill Independent of Subject Matter: Controlling Variables - identifying variables that might influence a phenomenon that is being investigated.
Cognitive level: Comprehension and Application
Difficulty: 0.753

Use the following information to answer question 13.

Sue wanted to find out what variables affect the growth of radish seedlings. She set up two identical jars.



Sue placed one jar in a dark refrigerator and one near a sunny window. She measured the length of the seedlings after two weeks.

13. What variables may have caused a difference in growth between the radishes in the two jars?

*A. Light and temperature
B. Moisture and size of jar
C. Moisture and number of seeds
D. Light and length of growing time

In this question students are required to identify the variables that may have caused a difference in growth between the radishes in the two jars.

DRAFT

Purpose of Performance Standards

The Grade 6 performance standards statement is intended to help educators develop a shared, province-wide understanding of acceptable and excellent levels of achievement for Grade 6 Science.

Presented on the following pages are DRAFT statements which describe what is expected of Grade 6 students who are achieving at an acceptable or an excellent level of performance on independent work at the end of the *Grade 6 Science Program*. Once finalized, these statements will represent the standards of performance against which provincial and/or local levels of student achievement will be compared. By comparing actual provincial results to expected provincial performance standards, it can be decided if achievement is in fact "good enough." The standards of performance inherent in these statements are derived from the goals and objectives of Division II Science as presented in the *Program of Studies for Elementary Schools, 1982*.

Through discussions held with educators in developing the achievement tests, the expectation exists that 85 per cent of all students will meet acceptable levels of performance but only 15 per cent will achieve a level of excellence. We are interested in knowing if these standards of performance and the expectations of how many students will meet these levels of performance are appropriate. Your views regarding these expectations would be appreciated and may be forwarded to:

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Target Group

The Grade 6 science course is intended for all students enrolled in the regular Grade 6 program. It is expected that these students will have successfully completed science at the Grade 5 level. The standards inherent in the Grade 6 science course, and described below, are for this target group.

Acceptable Level of Performance

Students who have achieved an acceptable level of performance in Grade 6 science have an essentially accurate but often narrow understanding of the conceptual and procedural knowledge that is fundamental to the program. For example, they may know that adding energy to matter may result in changes of shape, size, and state and that these changes are often easily reversed but not understand that changes of composition such as rusting or burning usually involve relatively large amounts of energy and are not easily reversed. Similarly, students may know how to demonstrate the conditions necessary to produce sound but be unsure of the procedures needed to demonstrate how materials vary in their ability to transmit, reflect, or absorb sound.

For their level of performance to be considered acceptable, students must also be able to use their conceptual and procedural knowledge to perform the routine cognitive and psychomotor tasks and procedures that are fundamental to the program. While their skills may be sufficiently well developed to permit them to accomplish what was assigned, their efforts often lack fluidity and may require conscious attention to be successful. For example, such students may be able to construct simple electric circuits very well but because of their narrow range of conceptual and procedural knowledge, be unable (without prompting or assistance) to manipulate components of the system to demonstrate their effect on the circuit. Similarly, in many situations, they experience difficulty transferring their knowledge and skills from the classroom to a real-life situation. For instance, they may be unable to isolate and manipulate the variables that are causing a household lamp to be inoperative.

Students achieving acceptable levels of performance generally exhibit a positive attitude towards the study and processes of science and most have some appreciation of science in their daily lives. They may, however, be somewhat lacking in their ability to use inquiry skills or in their willingness to examine the social implications of science. For example, most students are able to appreciate that electricity has an important technological role in society but may be reluctant or unable to discuss the impact of the burning of fossil fuels on the environment. In addition, students may require encouragement to develop their own abilities to explore and interpret objects and events in their own local environment.

Excellent Level of Performance

Most students who have achieved an excellent level of performance in Grade 6 science have a superior understanding of the essential conceptual and procedural knowledge that is fundamental to the program. For example, many students know that energy exists in different forms and can be classified as renewable or nonrenewable. In addition, they understand that the conservation of energy and the development of alternate sources are essential to our future well being. Similarly, students often know how to design, construct, and control variables (such as light, temperature, and moisture) when determining how organisms respond to changes in their environment.

For their level of performance to be considered excellent, students must be able to use their internalized conceptual and procedural knowledge to accomplish assignments confidently and without hesitation. In addition, students can perform higher cognitive and psychomotor tasks and procedures that are extensions of the program. As a result, these students may not only be able to demonstrate that a beam of light can be reflected or refracted but also be proficient in their ability to predict the possible paths of light under various conditions, demonstrate the effect that lenses, mirrors, and prisms have on light, and infer that white light is a combination of all the colors of the spectrum. Similarly, students often are able to transfer and apply their knowledge and skills from the classroom to a real-life situation. For instance, students can explain how optical instruments, such as eyeglasses and binoculars, are designed and describe the mechanics of their day-to-day operation.

Students achieving an excellent level of performance exhibit an awareness, appreciation, and interest in science as it relates to the environment, themselves, and society. In addition, they have the ability to use inquiry skills and the willingness to examine the social implications of science. In many cases these students are able to express their appreciation that the earth environment changes due to the influence of the physical factors of weather, radiation, and life forms, discuss and infer possible effects of the changes on the environment, and then develop strategies to investigate the potential implications for society (i.e. the deterioration of the ozone layer of the Earth's atmosphere).

APPENDIX A: EXPLANATION OF COGNITIVE LEVELS

1. Knowledge

Knowledge is defined as those behaviours and test situations that emphasize the remembrance, either by recognition or recall, of ideas, material, or phenomena. This level comprises knowledge of terminology, specific facts (dates, events, persons, etc.), conventions, classifications and categories, and theories and structures.

2. Comprehension and Application

Application requires that the students apply an appropriate abstraction (theory, principle, idea, and/or method) to a new situation.

Comprehension refers to responses that demonstrate understanding of the literal message contained in a communication. This means that the student is able to translate, interpret, or extrapolate. Translation refers to the ability to put a communication into another language. Interpretation involves the reordering of ideas (inferences, generalizations, or summaries). Extrapolation is the ability to make estimates or predictions based on an understanding of trends or tendencies.

APPENDIX B:

"Why Do We Have to Give These Tests?"
Achievement Tests and the Whole Language Success Story

Peggy Skett and Ruth Hayden

"Why do we have to give those tests?" is a question echoed in many staff rooms at the beginning of June. Frequently, those who are most forceful in voicing their concerns about Provincial Achievement Tests are those Grade Three teachers who adhered to the whole language philosophy. Comments such as "They don't fit with the way I teach"; "They are a waste of time"; "My kids don't know how to do those tests"; "They only measure product, not process" are commonplace as the testing date approaches. These teachers are not against evaluation per se; rather they are reluctant to accept an evaluation tool which they feel has little validity with respect to their teaching philosophies.

Evaluation is defined as a judgement made about student performance in relation to defined outcomes. It is an umbrella or inclusive term which encompasses other terms like assessment, diagnosis, and interpretation. Evaluation is the process of judging the value of what has been assessed. Assessment occurs in many different ways -- all providing information about what a student has learned. Standardized tests (to which Provincial Achievement Tests belong) are one kind of assessment. Other less formal types are anecdotal records, observational checklists, and accumulated files of student work. As an achievement test for one of four subject areas is given annually to all Grade Three students in the Province, it seems reasonable and fair to examine the justification for concerns such as those noted above.

WHY DO I HAVE TO GIVE STANDARDIZED TESTS?

The purpose of standardized testing is to provide for valid comparisons across groups -- among schools and among school jurisdictions throughout the province. A perfect comparison may not be possible, however, because teachers of young children naturally give prompts to their students as they do the test, in spite of the administration manual directions. Just one little prompt can put one group at an advantage.

Standardized tests are used to provide information about how well student learning outcomes are being achieved. These tests provide one measure of accountability and are a way of reporting what is happening in our schools to the rest of society by informing both the public and ourselves about the strengths and weaknesses of our programs.

HOW VALID IS THE TEST IF MY STUDENTS DON'T NORMALLY EXPERIENCE THIS KIND OF SITUATION?

It is possible that the testing experience might not be valid, especially for Grade 3 children in whole language classrooms. The test itself may not reflect meaningful language experiences through which students are provided a total context for reading and writing. Since testing is not a common experience for such young children, Alberta Education actually states in their Student Achievement Testing Program Bulletin that teachers should prepare their students for the testing situation by explaining the purpose of the test beforehand and giving their students the sample questions contained in the bulletin. Students should have practice with the test format and should not meet it without any preparation. Just as teachers prepare their students for a wide variety of experiences such as street safety at Halloween, turn-taking during group play, or how to borrow books from the library, so too they can assist their students in coping with the requirements needed to do the test in competent ways.

AREN'T STUDENTS THIS AGE TOO YOUNG TO BE TESTED?

For some students in Grade Three -- yes, there are some reasons for which the testing experience is inappropriate, for example, ESL students or others who have particular language deficits. However, Alberta Education makes provisions for those students whom teachers feel the test would be inappropriate and allows them to not write the test, by permission of the district superintendent.

WHO MAKES UP THESE TESTS?

The tests are created by classroom teachers who are considered to be knowledgeable about specific subject content. In the case of preparing Alberta Education achievement testing, teachers, consultants, and Alberta Education personnel are involved. The process of development is quite lengthy. Questions are created according to those curriculum specifications previously set out by Alberta Education. The questions are grouped into tests which are piloted throughout the province. Based upon several piloting efforts, the actual test is composed of those questions which have been revised a number of times. The final draft is examined by an Achievement Test Review Committee which includes representatives from the ATA, Council of Alberta School Superintendents, Alberta post-secondary institutions, and Alberta Education.

Alberta Education gives all teachers in the province a mandate in the form of educational outcomes of what it expects students to learn in school. In other words, teachers are expected to provide their students with those learning opportunities which will allow them to understand the various curricula. The teaching methods and curriculum implementation are not dictated. Only the outcomes of the teaching/learning process are measured.

WHAT IF I HAVEN'T TAUGHT A PARTICULAR SKILL OR UNIT?

If we have followed the program of studies, then this is no problem. Remember, the test questions are aligned with provincial outcomes. By examining the curriculum guides and by planning our teaching to meet the demands of these guides regardless of our education philosophies or methodologies, we can be sure that our students are adequately prepared to understand the content of the tests.

WHY DOES IT TAKE SO MUCH TIME TO GIVE THE TESTS?

The time element is not really a critical factor. For example, a Grade 3 student will spend approximately two hours writing the provincial test. When one considers that the tests are supposed to reflect the curriculum learning in the tested subject for the first three grades, two hours over a three-year period is somewhat minimal.

ARE NOT OTHER EVALUATION METHODS BETTER?

Yes, but for other purposes. In order for Alberta Education to be able to measure student achievement across the province, something standard must be used. Thus, we have the achievement tests.

To argue that informal evaluation is sufficient of itself as the sole measure of the learning that goes on in our classrooms holds no more credibility than the argument that achievement testing is the only true evaluation of our teaching endeavors. There is danger when one form of evaluation is given priority and emphasized as being the one and only method by which we judge.

Both forms of assessment are necessary to provide complete profiles of student learning. One form is not more valuable than the other. On the contrary, informal and formal compliment each other in assessing the breadth and depth of student achievement whether individually or as groups.

WHY DO I HAVE TO GIVE THE TESTS WHEN I CAN'T USE THE RESULTS FOR FINAL REPORT CARDS?

This is valid -- to a point. It is true that results, which are returned to the schools in September, cannot be used for evaluation in June. However, they can be used to determine if there are any gaps or strengths in our program.

Furthermore, the bulletin from Alberta Education actually states that the test results are not to be used to provide information for student placement or promotion. Results are sent to each respective school jurisdiction. A district profile, as well as individual student profiles are sent to the superintendents and principals of schools where students wrote the exams. No individual statements are sent to students. It becomes important then to have other assessment tools in place -- to demonstrate to students and their parents the progress that has been achieved.

I TEACH READING FROM MEANINGFUL WHOLE PASSAGES SO THAT STUDENTS CAN USE ALL THEIR CUEING SYSTEMS. HOW DOES THE TEST PROVIDE FOR THIS?

A test format may isolate specific skills in order to measure them. Alberta Education test developers are presently attempting to meet this concern by providing meaningful passages which are complete within the test -- for example, poems or short stories.

CONCLUSION

There may always be tension about evaluation tools just as there are differences of opinion about various philosophies and methods of teaching reading and writing. However, if we believe in our philosophy of providing children with opportunities for meaningful language learning in our classrooms and if we believe that our wholistic approaches to instruction and learning encourage them to be competent users of language, student success on Provincial Achievement tests will highlight the worth of our programs.

If on the other hand, our results from the achievement tests do not reach acceptable standards, all our other forms of assessment will be called into question, making educational policy makers suspicious of our philosophies and the wholistic approaches we currently are using in our classrooms. By understanding why achievement tests are mandated, how they are developed, and what they involve, we may be, like our students, better prepared to test the metal of our beliefs and ensure continued success with these exciting language learnings in our classroom.

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